

Fig. 1

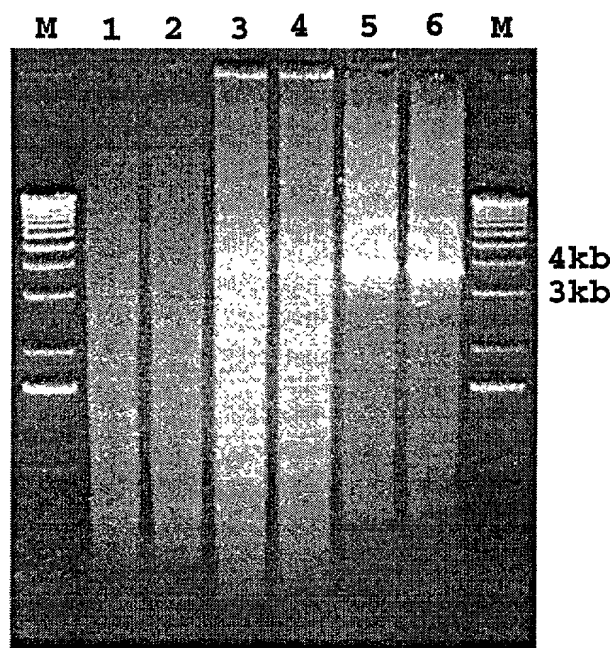


Fig. 2A

Burma	GGEIGHORPSVIPRGNDPANDVTLAAFPSCQISAFHQLAEELGHRPVPVAAVLPPCPELEQGLLYLPQELTCTDSVVTFTLTDIVHCRMAAPSORKAVL	100
D11092 China	.....A.....	100
D11093 China	.....C.....	100
HEV-T1 China	.....R.TI.N.....D.....F.Y.....A.I.....M.....S.L.....R.....	100
Hetian China	.....A.....	100
Hyderabad India	.....A.....	100
KS2-87 China	.....A.....	100
L25547 China	.....A.....	100
Madras India	.....A.....	100
Mexico	.....V.....G.....GV.....R.....I.....AS.....R.S.....V.....	100
Myanmar	.....R.V.....A.....	100
Nepal	.....A.....	100
SAR-55 Pakistan	.....A.....	100
Swine HEV USA	.....V.H.....Q.LG.Q.....Y.....A.....M.....VS.....LV.....	100
US1 USA	.....V.XH.....Q.LG.Q.....Y.....A.....M.....VS.....LV.....	100
US2 USA	.....V.H.....Q.LG.Q.....Y.....A.....M.....VS.....LV.....	100
X98292 India	.....T.....	100
Avian HEV USA	LVRPDAAA.AGVL.A-.DT.G.LDI.AHTDV.AVLT.AI.A.LEL.IN.G.V.....M.AR.DGR.E.KIQ.S.T.....L..TS.L.I	99
Burma	STLVGRYGGRTKLYNASHDVRDSLARFIPAIGPVQVTTCELYELVEAMVERKQDGSVLELDLNCNRDVSRTFFQKDCNKFTTGETIAHGKVGQGISAW	200
D11092 China	.....R.....	200
D11093 China	.....PAG.....	200
HEV-T1 China	.....R.....E.A.T.....G.NH.....EL.IN.....S.....	200
Hetian China	.....H.R.....	200
Hyderabad India	.....R.....	200
KS2-87 China	.....R.....	200
L25547 China	.....R.....	200
Madras India	.....T.....R.....T.....S.E.....I.....EHM.....A.....V.....	200
Mexico	.....R.....R.D.G.T.....A.....TL.R.TA.....F.....S.....	200
Myanmar	.....R.....	200
Nepal	.....R.....	200
SAR-55 Pakistan	.....R.....	200
Swine HEV USA	.....R.....E.A.....E.....T.....A.....	200
US1 USA	.....R.....E.A.....E.....T.....A.....	200
US2 USA	.....R.....E.A.....E.....T.....RA.....	200
X98292 India	.....R.....	200
Avian HEV USA	N.....KA.....-PEVEY.LM.TI.Q.WHH.....INFS.L.YA.NC.....LS.....LIVH.....QDA.C.....A.....LDDPV.....	198
Burma	SKTFCALFGPWFRATEKAILALLPOGVFYGDADFDDTVF-SAAVAAAKASWVFENDFSEFSDTONNFSGLGLECAIMEECGPOWLIRLYHLIRSANILQAP	299
D11092 China	.....	299
D11093 China	.....E.A.APN.....YE.....L-A.....G.PGCK.....	299
HEV-T1 China	.....	299
Hetian China	.....R.....	299
Hyderabad India	.....	299
KS2-87 China	.....	299
L25547 China	.....	299
Madras India	.....P.....	299
Mexico	.....S.A.....Y.S.....G.SHA.....	299
Myanmar	.....	299
Nepal	.....	299
SAR-55 Pakistan	.....E.....PNI.....YEES.-A..SG.GSC.....	299
Swine HEV USA	.....E.....PNI.....YEES.-A..SG.GSC.....	299
US1 USA	.....E.....PNI.....YEES.-A..SG.GSC.....	299
US2 USA	.....E.....PNI.....YEES.-A..SG.GSC.....	299
X98292 India	.....	299
Avian HEV USA	P.L.....HLV.G.P.YY.....LYTEADLHRSVLC.PAGHL.....V.D.....EL.RRF.....D.WVA.....V.Y.L.V.....	298

Fig. 2B

Burma	KESLRGFWKKHSGEPGTL	399
D11092 China	.....L.....	399
D11093 China	.....L.....	399
HEV-T1 China	.....A..E..LK.....	399
Hetian China	.....L.....	399
Hyderabad India	.....L.....	399
KS2-87 China	.....L.....	399
L25547 China	.....L.....	399
Madras India	.....L.....	399
Mexico	.....S.....	399
Myanmar	.....I.A..E..L.....	399
Nepal	.....L.....	399
SAR-55 Pakistan	.....L.....	399
Swine HEV USA	.....K.....	399
US1 USA	.....K.....	399
US2 USA	.....K.....	399
X98292 India	.....L.....	399
Avian HEV USA	.....A...C.....	398
Burma	AGRLTEKNWGPGERAEQLRLAVSDFLRKLTNVAQ--	487
D11092 China	.....L.....	487
D11093 China	.....L.....	487
HEV-T1 China	.....S.....	487
Hetian China	.....K.....	487
Hyderabad India	.....DE..I.....	487
KS2-87 China	.....L.....	487
L25547 China	.....L.....	487
Madras India	.....L.....	487
Mexico	.....S.....	487
Myanmar	.....D.....	487
Nepal	.....Q...R.....	487
SAR-55 Pakistan	.....C...G.....	487
Swine HEV USA	.....C...G.....	487
US1 USA	.....C...G.....	487
US2 USA	.....C...G.....	487
X98292 India	.....DIQ.MOD.EQ.CK..VARVVTQKGKMLTQ.L.AGY...	487
Avian HEV USA	.....W....D....	484

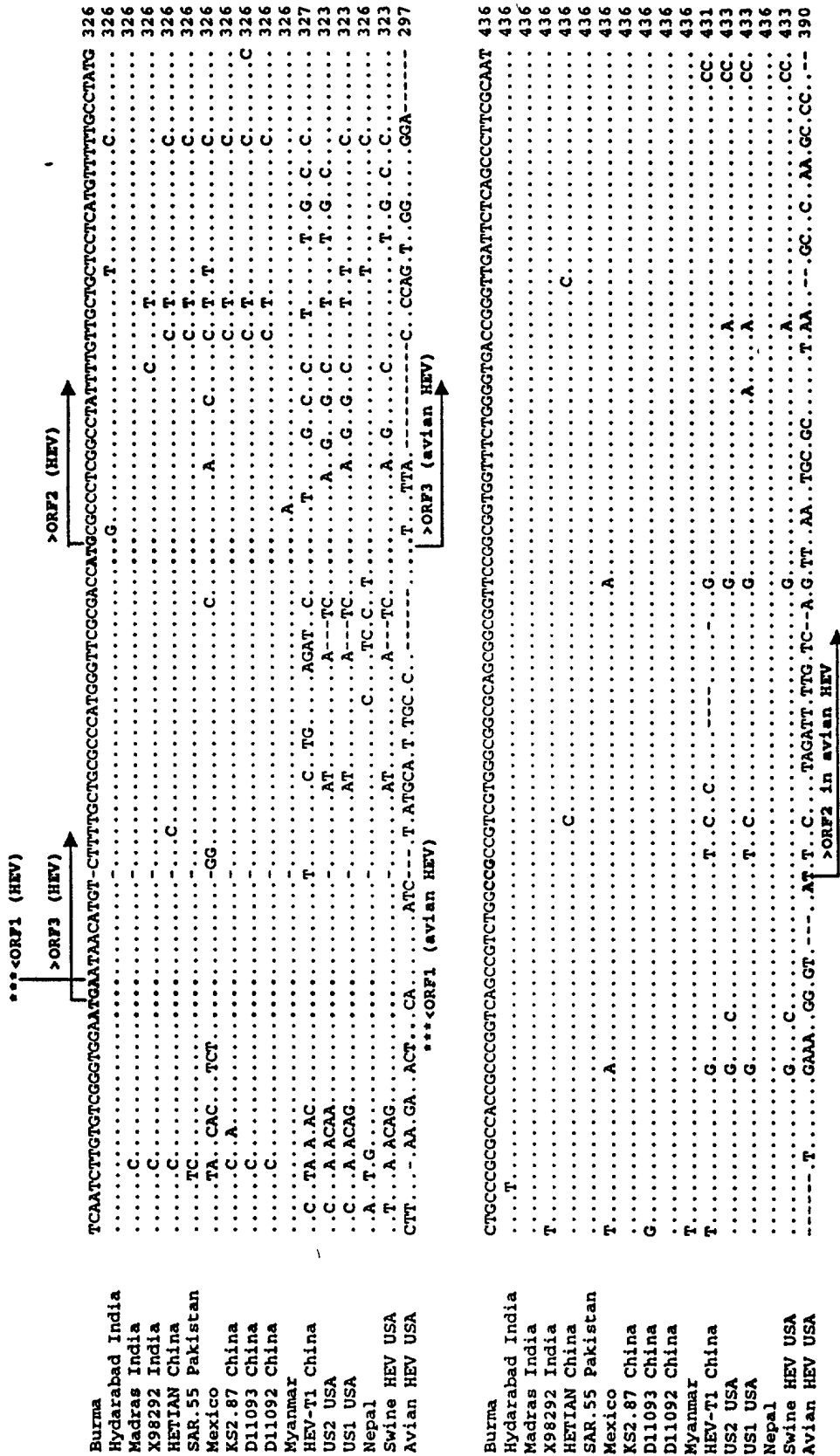
[illegible]

Fig. 3C

Burma	CCCTATATTTCATCCAACCAACCCCTTTCGCCCGGATGTACCGCTCGGGCGGGCTGGACCTGTTTCGCCAACCGCCGACCACTCCGGCTCGCTTGGCGTGACC	546
Hyderabad India	.....GA.....T.....C.....	546
Madras India	.....T.....T.....	546
X98292 India	.....C.....	546
HETIAN China	.....T.....	546
SAR.55 Pakistan	.....T.....	546
Mexico	.....T.....A.C.TG.....T.....CC.....A.....G.....A.....TC	546
KS2.87 China	.....T.....	546
D11093 China	.....	546
D11092 China	.....	546
Myanmar	.....	546
HEV-T1 China	.....AT.T.CA.TC.A.C.....A.....G.....CCC..G.G.AAT..T.....	541
US2 USA	.....G.....GTTT.ACAAC.....A.....CCC..A.G.G.....C.C.T.N.....	543
US1 USA	.....G.....GTTT.ACAAC.....A.....CCC..A.G.G.....C.C.....T.....	543
Nepal	.....TG.....GTTT.ACAAC.....GT.....CC..A.G.G.....C.C.T.....	546
Swine HEV USA	.....TG.....GTTT.ACAAC.....GT.....CC..A.G.G.....C.C.T.....	543
Avian HEV USA	-----G.....A.GCA.GCG.G.CCAG.....G.GT...A.T.CA..C.A.---A.CACT.	445

Burma	AGGCCAGCGCCCGCTTGCCTCAGTGTAGACCTACACAGCTGGGGCGCGCTACCGCGGTGCTCCGGCCCATGACACCCCGCAGTGCCTGATGTG	625
Hyderabad India	.....C.....C.....T.....	625
Madras India	.....A.....C.....T.....	625
X98292 India	.....T.....	625
HETIAN China	.....T.....	625
SAR.55 Pakistan	.....T.....	625
Mexico	.....T.....T.G..G.G.T.G.G.T.....T.A..C.C.G.C.T..	625
KS2.87 China	.....T.....	625
D11093 China	.....T.....	625
D11092 China	.....T.....	625
Myanmar	.....T.....T.G.T.T.G.....T.C.....TG.A.T.C.C..CT.	620
HEV-T1 China	.....T.....T.....G.T.....GT.A.....T.C.....AG.C.T.A.....	622
US2 USA	.....T.....T.....T.....A.A.T.A.A.....C..T.AG.T.T.A.....	622
US1 USA	.....T.....T.....T.....G.....G.....	625
Nepal	.....T.....T.....G.T.T..AT.A.....CC.....AG.T.T.A.....	622
Swine HEV USA	.....T.....T.....G.C.....TC..CC.....C.T.C.A.AC.T.TCA.C..CGCA.GT..T.GCA.G.A.A.....A..	500
Avian HEV USA	.....A.....AG.CA.....TC..CC.....C.T.C.A.AC.T.TCA.C..CGCA.GT..T.GCA.G.A.A.....A..	500

***ORF3 (HEV)

***ORF3
(avian HEV)

RdelaHEV Primer

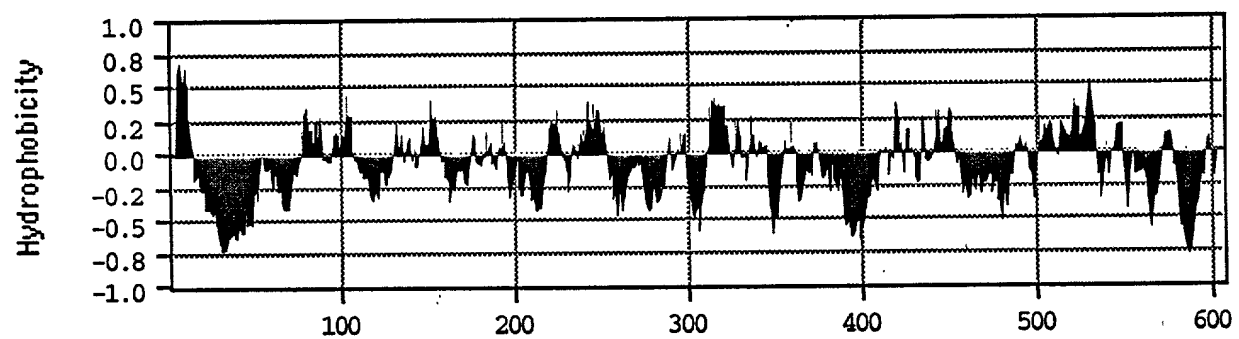


Fig. 4

Fig. 5A

Burma	MRPPIILLINFLNLPAPPPGQPSRRRRGRSGSGGFWGDRVDSQSPFAIPYIHPTNPPFADVTAAAGAGPRVRQPARPLGSAWRDQQRPAVASRRRPTTAGAALPTAVAPAHDTT	120
Hydarabad India	.....A.....V.....A.....P.....	120
Madras India	.....S.....A.....P.....	120
HETIAN China	.....A.....A.....A.....	120
SAR.55 Pakistan	.....T.....A.....S.....L.....T.....SA.....A.....A.....	120
Mexico	.....IV.....	120
KS5.87 China	.....Q-A-C.....L.....IP.....A-P.....I.....S.....AST.....AP.....S.....	120
D11093 China	.....A.....A.....VSQP.....P.....P.....S.....SA.....P.....SAP.....S.....P.....A.....	120
D11092 China	.....A.....A.....VSQP.....P.....P.....S.....S.....P.....S.....P.....IS.....P.....A.....	120
HEV.T1 China	.....C.....N.....A.....L.....A.....VSQP.....P.....P.....S.....ST.....SAP.....S.....A.....	120
US2 USA	.....G.....V.....I.....A.....	120
US1 USA	.....S.....P.....	120
Nepal	.....AQ.....STQ.....	120
Swine HEV USA	.....R.NS.....	120
U22532 India	.....EGAV.....P.....D.VT.AG.R	65
AKL.90 India	.....
Morocco	.....
Egypt93	.....
Egypt94	.....
Avian HEV USA	.....
Burma	PVPDVSRGAILRRQYNLSTPLTSSVATGTVNLVLAAPLSPLLPQDQNTHTIMATEASNYAQYERVARATIRYRPLVNAVGGYALISFMPQITTTTTSVDMNSITSDVRLVQPOI	240
Hydarabad India	.....P.....	240
Madras India	.....V.....	240
HETIAN China	.....	240
SAR.55 Pakistan	.....N.P.....	240
Mexico	.....G.....	240
KS5.87 China	.....TI.....P.....V.....	240
D11093 China	.....S.....N.....V.....	240
D11092 China	.....S.....N.....V.....	240
HEV.T1 China	.....A.....	240
US2 USA	.....A.....	240
US1 USA	.....A.....	240
Nepal	.....P.....	240
Swine HEV USA	.....P.....	240
U22532 India	.....P.....	240
AKL.90 India	.....	240
Morocco	.....	240
Egypt93	.....	240
Egypt94	.....	240
Avian HEV USA	.....QA.V.V.....LATOS.AL.....V.M.....TSN.S.S.....QGL.V.W.V.....FS.MAY.....S.....I.....VWL.....S	185

Fig. 5B

Burma	ASLVTPSERLHYRNOQWRSVETSQVAEEAT	SOLVHLCIHGSLVNSYNTPTTCALCLLDPALE	EPHMTFCNTNTRVSRYSSTARHLRRGADCTA	ELTTTAATRFKDLFTSTNG	360
Hydrabad India	.....P.....	.....	.....	.....	360
Madras India	.....P.....	.....	.....	.....	360
HETIAN China	.....H.....	.....	.....	.....	360
SAR-55 Pakistan	.....P.....	.....	.....	.....	360
Mexico	.....P.....	.....	.....	.....	360
KS5-87 China	.....P.....	.....	.....	.....	360
D11093 China	.....P.....	.....	.....	.....	360
D11092 China	.....P.....	.....	.....	.....	360
HEV-T1 China	.....P.....	.....	.....	.....	360
Myanmar	.....T.....	.....	.....	.....	358
US2 USA	.....P.....	.....	.....	.....	360
US1 USA	.....P.....	.....	.....	.....	360
Nepal	.....P.....	.....	.....	.....	360
Swine HEV USA	.....P.....	.....	.....	.....	360
U22532 India	.....T.....	.....	.....	.....	360
AKL-90 India	.....P.....	.....	.....	.....	360
Morocco	.....P.....	.....	.....	.....	360
Egypt93	.....P.....	.....	.....	.....	360
Egypt94	.....P.....	.....	.....	.....	360
Avian HEV USA	GL.T.H...A.K.N.....VS.FQ.D...ML.V.V..TFW....SV...P.MV..IK.QL..S...	A..T.VKV..P.TIKADPS-.TI..A.A..A.VRWGLG.A	304		
Burma	-VGEIGRGIALTFNLADTL	LOGLPTELISSAGQLFYSRPVVSANGEPTVKLYTSVENAQDQKIAIPHDIDLGESRVVIQDYNQHEQDRPTTSPAPSRPFSVL	RANDVLMLS---	LT	476
Hydrabad India	.....R.....	.....	.....	.....	476
Madras India	.....R.....	.....	.....	.....	476
HETIAN China	.....R.....	.....	.....	.....	476
SAR-55 Pakistan	.....L.....	.....V.....D.....	.....	.....	476
Mexico	.....L.....	.....	.....	.....	475
KS5-87 China	.....L.....	.....	.....	.....	476
D11093 China	.....L.....	.....	.....	.....	476
D11092 China	.....L.....	.....	.....	.....	476
HEV-T1 China	.....V.....	.....	.....	.....	474
Myanmar	.....H.....	.....	.....	.....	476
US2 USA	.....V.....	.....T.....D.....	.....	.....	476
US1 USA	.....V.....	.....T.....D.....	.....	.....	476
Nepal	.....V.....	.....T.....D.....	.....	.....	476
Swine HEV USA	.....V.....	.....T.....D.....	.....	.....	476
U22532 India	.....V.....	.....T.....D.....	.....	.....	476
AKL-90 India	.....V.....	.....	.....	.....	476
Morocco	.....V.....	.....	.....	.....	476
Egypt93	.....V.....	.....	.....	.....	476
Egypt94	.....V.....	.....	.....	.....	476
Avian HEV USA	ED...H..LGV.....V.....ST.LRA.S.Y.....GN.....E.....N..D.VN..P.MV.....T.T.TC..G...VD...S.A..K.ALGT..SG...	RITGSMQY	424		

Burma	AAEYDQSTYGSSTGCPVYVSDSVTLVNVATCAQAVARSLDWTNVTLDORPLSTIQOYS--KTFFVLPLRCLSFWEACTTKAGVPYVYNTTASDQLLVENACHRVAISTYTTSLGAPV3	594
Hyderabad India	.....--I.....RP.....	594
Madras India	.....	594
HETIAN China	.....T.....	594
SAR.55 Pakistan	.....I.....P.VE.....	593
Mexico	.....	594
KS5.87 China	.....C--.....	594
D11093 china	.....	594
D11092 China	.....	594
HEV.T1 China	.....T.....G.S.....S.....Y.....	592
Myanmar	.....T.....N.M.....T.....P.....	594
US2 USA	.....T.....N.M.....T.....S.....Y.....	594
US1 USA	.....T.....N.M.....T.....S.....K.Y.....	594
Nepal	.....T.....N.M.....T.....S.....	594
Swine HEV USA	.....T.....N.M.....T.....S.....Y.....	594
U22532 India	.....	594
AKL.90 India	.....	594
Morocco	.....	594
Egypt93	.....	594
Egypt94	.....	594
Avian HEV USA	.....F.Q..B.HQEWYFLOM--ES.VVYA..NML-QK---	538
Burma	ISAVAVLAPH3SALLEDTLDYPARANTDDFCPCRPLOCCAFQS---TVAELOQLKMKVKTREL--	660
Hyderabad India	.....G.....	655
Madras India	.....	660
HETIAN China	.....M.....	660
SAR.55 Pakistan	.....V.....M.....	660
Mexico	.....A.....S.....F..G.....A.....	659
KS5.87 China	.....T.....M.....	660
D11093 china	.....M.....	660
D11092 China	.....M.....	660
HEV.T1 China	.....V..GV.....A.....A.....G.....Y--	658
Myanmar	.....C.....	660
US2 USA	.....G.....V.....I.....T.....I.....S--	660
US1 USA	.....G.....V.....V.....T.....I.....S--	660
Nepal	.....G.....V.....V.....I.....S--	660
Swine HEV USA	.....G.....	660
U22532 India	.....F.....	660
AKL.90 India	.....	660
Morocco	.....	660
Egypt93	.....	660
Egypt94	.....	660
Avian HEV USA	-SDTSI.FEVRPIQASDQ--FWFLAH..CG.D.TT.L....RT.CR.APEDQSP.TR..LDRLSR.FPSPP	606

Avian HEV USA	ACATGTCGTGGTTTTGGGGTTTTAGGTTGATTTCTGTATCTGGGCGTAATGCCCCCTATGTTTAATTTA70	
Burma	-----T...G...-----T...-----CT.C...C---G29	
D11092 China	-----T...G...-----T...-----CT.C...C---G29	
D11093 China	-----T...G...-----T...-----CT.C...C---G29	
HEV-T1 China	-----T...G...-----T...-----CT.C.GCC---G30	
Hetian China	-----T...G...-----T...-----CT.C...C---G29	
Hyderabad India	-----T...G...-----T...-----CT.C.C.C---G29	
L25547 China	-----T...G...-----T...-----CT.T...C---G29	
Mexico	-----T...GGC-----T...-----A.CTAC..AT..C.G32	
Myanmar	-----T..C.G...-----T...-----CT.C...C---G29	
Nepal	-----T...G...-----T...-----CT.C.C.C---G29	
SAR-55 Pakistan	-----T...G...-----T...-----CT.C...C---G29	
Swine HEV USA	-----A...C-----TT.T-----G...CC.TCA..GC..C31	
US1 USA	-----A...C-----TT.T-----G...CC.TCGC.G..CT31	
US2 USA	-----A...C-----CT.T-----G...CC.TCG..G...C31	
X98292 India	-----T...G...-----T...-----CT.C...C---G29	
Avian HEV USA	TTGTGATTTTATAACTGTTTCATTGATTATTTATGAAATCCTCCCATCTCGGGCATAGT	130
Burma	...-----C-----T...C-.C...C..CGT...G.G.TC.CT.	65
D11092 China	...-----C-----T...C-.CT...C..CGT...G.G.TC.CT.	65
D11093 China	...-----C-----T...C-.CT...C..CGT...G.G.TC.CT.	65
HEV-T1 China	..T-----C-----T...C-CCT...C..CGTC..G.G.TC.CT.	68
Hetian China	...-----C-----T...C-.C...C..CGT...G.G.TC.CT.	65
Hyderabad India	...-----C-----T...C-.C...C..CGT...G.G.TC.CT.	65
L25547 China	...-----C-----T...C-.CT...C..CGT.T.G.G.TC.CT.	65
Mexico	C...--...CC-----T...C-C.T...C.CGGTC..G.G.TC.CT.	74
Myanmar	...-----C-----T...C-...C..CGT...G.G.TC.CT.	65
Nepal	...-----C-----T...C-.CT...C..CGT...G.G.TC.CT.	65
SAR-55 Pakistan	...-----C-----T....	39
Swine HEV USA	C...--...GG-----T...C-...C..CTT...G.G.TC.CT..	72
US1 USA	C...--...GGC-----T...C-.C...C..CTT...G.G.TC.CT..	72
US2 USA	...--...CGC-----T...C-...C..CTT...G.G.TC.CT..	72
X98292 India	C...-----C-----T...C-.CT...C..CGT.T.G.G.TC.CT.	65

Fig. 6

Fig. 7

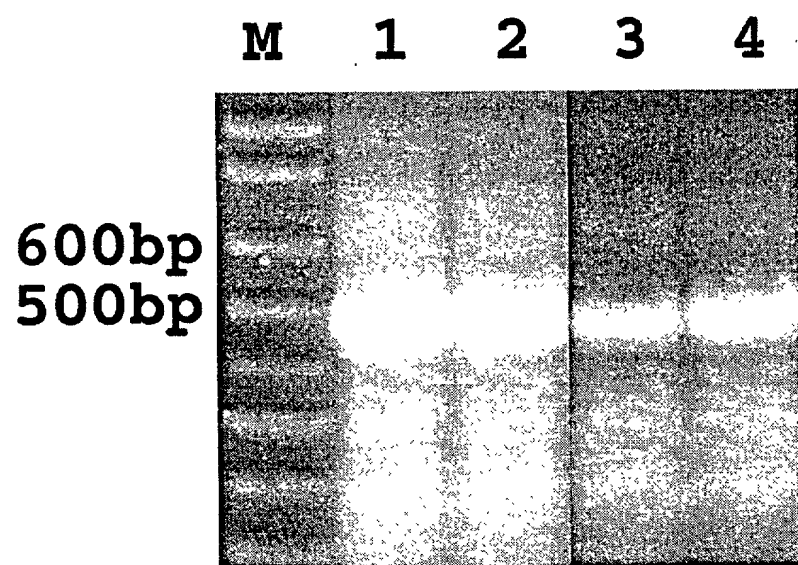


Fig. 8A

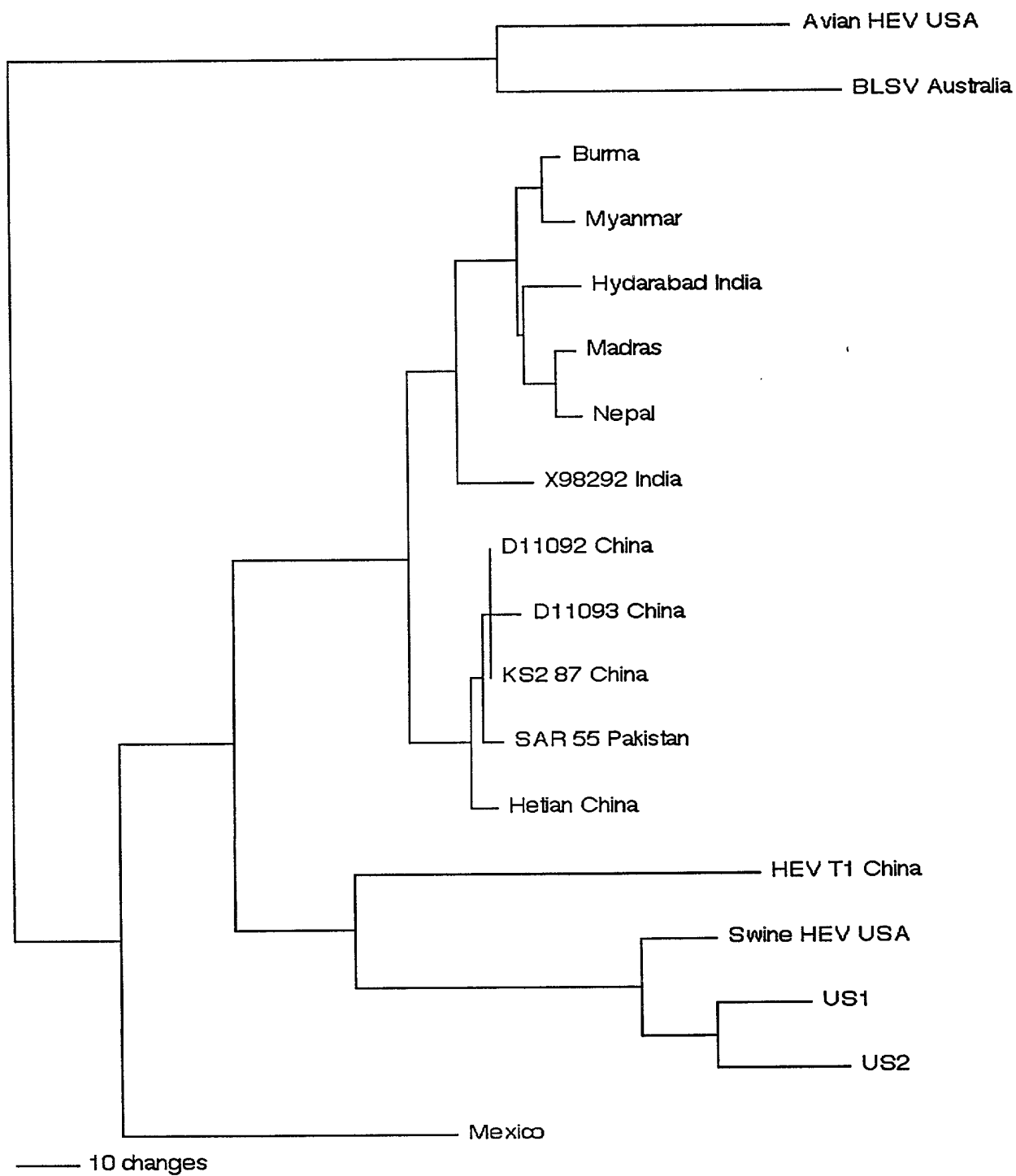


Fig. 8B

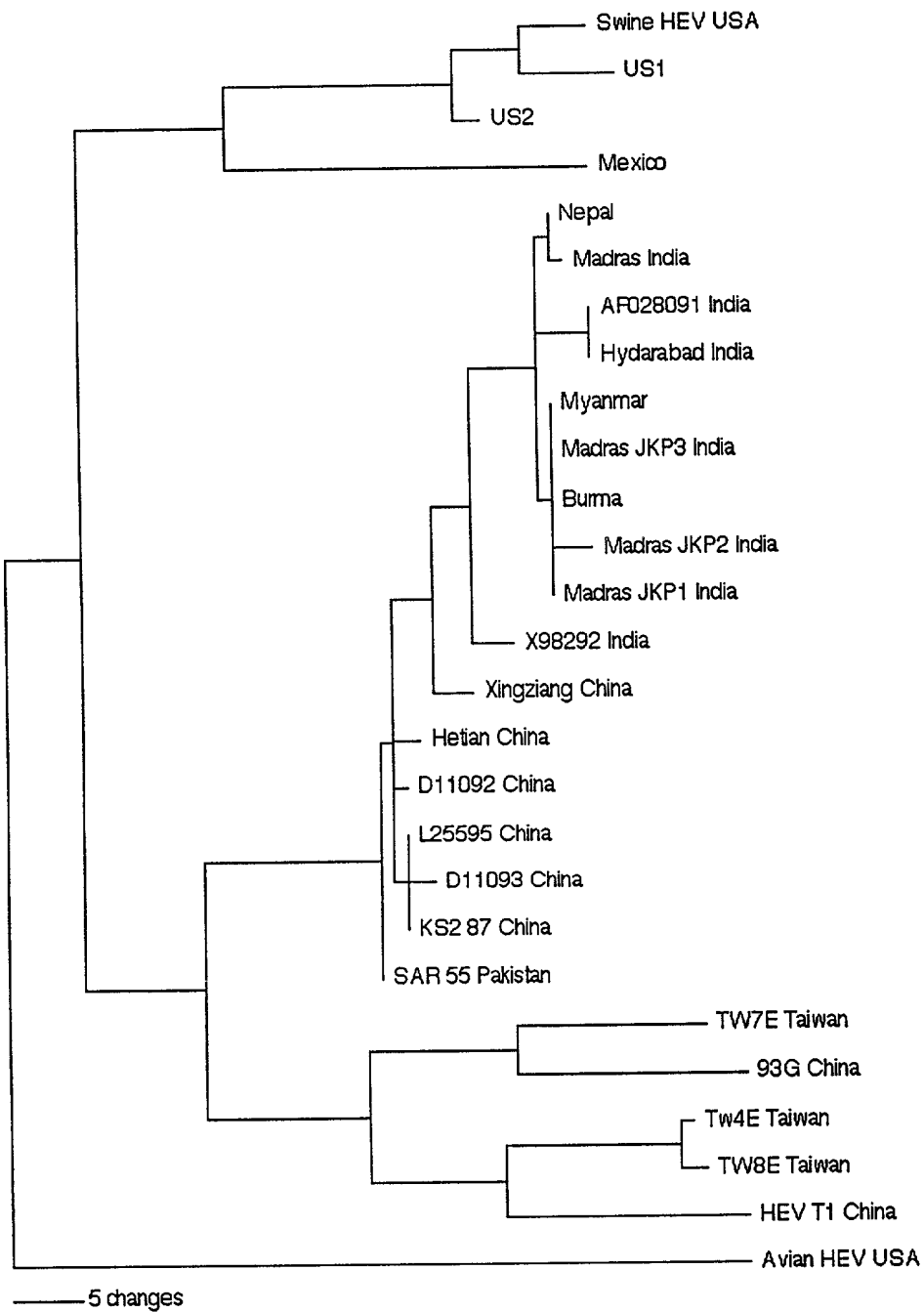


Fig. 8C

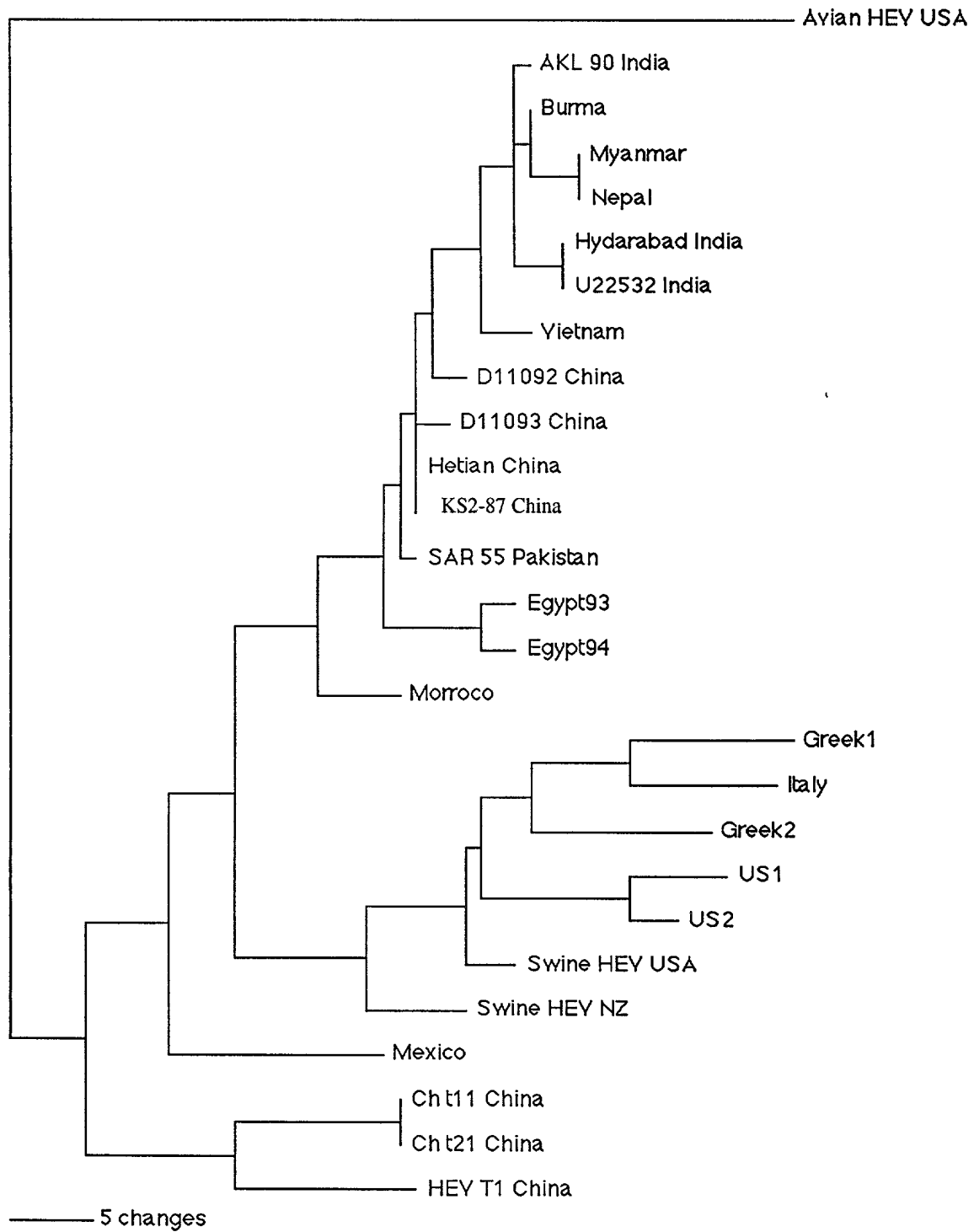


Fig. 9A

ACCAGCATTGGATTTTCGATGGACGCTGTTTAAACGAGCGCCGTTGATCTTGGG
TTGCAGCCTACCAGCTGGCGCACCGTATCCCACCGTTGCCCTTGGGACGTTT
GTATATTTTTGCGTACTGATTATCCGACTATCACCACAACCAGTAGGGTGCT
GCGGTCTGTTGTGTTTACCGGTGAAACCATTGGTCAGAAGATAGTGTTTACC
CAGGTGGCCAAGCAGTCGAACCCCGGGTCCATAACGGTCCATGAGGCGCAG
GGCAGTACTTTTGATCAGACTACTATAATCGCCACGTTAGATGCTCGTGGCC
TTATAGCTTCATCTCGCGCGCATGCCATAGTTGCGCTAACCCGCCACCGGGA
GCGCTGTAGTGTGATTGATGTTGGTGGGGTGCTGGTTCGAGATTGGAGTTACT
GATGCCATGTTTAAACAATATCGAAATGCAGCTTGTGCGACCTGATGCTGCAG
CCCCTGCCGGGGTGCTACGAGCCCCAGACGACACCGTGGATGGCTTGTTGGA
CATAACCCCGGCCACACTGATGTAGCGGCGGTGTTAACAGCTGAGGCGATT
GGGCATGCGCCCCCTGAATTGGCCGCCATAAATCCACCCGGGCCTGTATTGG
AGCAGGGCCTATTATACATGCCGGCCAGGCTTGATGGGCGTGATGAGGTTGT
TAAGCTCCAGCTGTCGGATACTGTACACTGCCGCCTGGCTGCACCCACTAGC
CGTCTTGCGGTGATTAACACATTGGTTGGGCGGTACGGTAAAGCCACTAAGC
TGCCTGAGGTTGAATATGACTTAATGGACACTATTGCGCAGTTCTGGCATCA
TATCGGACCAATCAACCCCTCAACACTGGAGTATGCAGAGATGTGCGAGGC
CATGCTTAGTAAGGGCCAGGATGGGTCCTTGATTGTACATCTGGATTTACAG
GATGCTGATTGTTCTCGCATAACATTCTTCCAGAAGGACTGCGCTAAATTTA
CGCTGGATGACCCTGTTGCACACGGTAAAGTGGGACAGGGGATATCTGCGT
GGCCGAAAACTTTGTGTGCACTTTTCGGCCCCTGGTTCCGGGCTATAGAGAA
GCACCTTGTTGGCTGGGTACCCCCAGGTTATTACTATGGGGACCTGTACACG
GAAGCCGATCTGCATCGTTCTGTGCTTTGCGCGCCTGCTGGTCACCTTGTTTT
TGAGAATGATTTCTCAGAGTTTGACTCAACGCAGAATAATGTGTCCCTTGAT
CTCGAATGTGAATTGATGCGCAGGTTTGGGATGCCCCGATTGGATGGTAGCCT
TGTACCATCTTGTTTCGATCATACTGGCTCTTGGTTGCCCCGAAAGAAGCCCTT
CGTGGCTGTTGGAAAAAACACTCTGGTGAGCCGGGCACCCTTTTGTGGAATA
CAGTTTGGAACATGACTGTGTTGCATCATGTTTATGAGTTTGATCGACCAAG
TGTGTTGTGTTTCAAAGGTGATGATAGTGTCTGTGAATCGGTGCGC

Fig. 9B

GCCCGTCCAGAGGGCGTTAGTCTCGTGGCAGACTGCGGGCTAAAAATGAAG
GACAAGACCGGCCCCGTGTGGCGCCTTTTCCAACCTGCTGATCTTCCCGGGAG
CTGGTGTGTCTGCGACCTGTTACGGCAGTGGGGCCGCTTGACTGACAAGAA
CTGGGGGCCCCGACATTCAGCGGATGCAGGACCTTGAGCAAGCGTGTAAGGA
TTTTGTTGCACGTGTTGTAACCTCAGGGTAAAGAGATGTTGACCATCCAGCTT
GTGGCGGGTTATTATGGTGTGGAAGTTGGTATGGTTGAGGTGGTTTGGGGGG
CTTTGAAGGCCTGCGCCGAGCCCGGAGACCCTAGTGACCAACAGGTTGCC
GGTACTAACTTATCTAAGGAGGACTGAACAAATAACAATCATTATGCAGT
CTGCGCGTCCATGTGCCTTAGCTGCCAGTTCTGGTGTGTTGGAGTGCCAGGAA
AGTGGGGTGGGATGTGCTGTGTAGATTGTTGCTCATGCTTGCAATGTGCTG
CGGGGTGTCAAGGGGGCTCCCAAACGCTCCCAGCCGGAGGCAGGCGTGGCCA
GCGCCGCCGTGACAATTCAGCCCAGTGGAGCACTCAACAACGCCCCGAGGG
AGCCGTGCGCCCCGCCCCCTCTCACAGACGTTGTCACCGCGGCAGGTACTCGC
ACGGTACCAGATGTAGATCAAGCCGGTGCCGTGCTGGTGCGCCAGTATAATC
TAGTGACCAGCCCGTTAGGCCTGGCCACCCTTGGTAGCACCAATGCCTTGCT
TTATGCCGCACCGGTGTCACCGTTAATGCCGCTTCAGGACGGCAGCAGCTCT
AATATCATGAGCACGGAGTCTAGCAACTATGCTCAATACCGTGTACAGGGCC
TAACTGTCCGCTGGCGCCCAGTTGTGCCAAATGCGGTGGGCGGCTTCTCTAT
AAGCATGGCCTATTGGCCCCAGACAACATCCACCCCTACAAGCATTGACATG
AATTCCATCACGTCCACTGACGTCCGTGTGGTGCTTCAGCCGGGCTCTGCTG
GTTTGCTGACTATACCACATGAGCGTTTGGCGTATAAGAACAATGGTTGGCG
GTCCGTCGAAACGGTATCCGTCCCACAGGAGGATGCCACGTCCGGCATGCTC
ATGGTTTGTGTCCACGGGACCCCTGGAATAGTTATACCAATAGTGTTTACA
CCGGGCCGCTTGGTATGGTTGATTTTGCCATAAAGTTACAGCTAAGGAACTT
GTCGCCCCGTAATACAAATGCCAGGGTCACCCGTGTGAAGGTGACGGCCCC
ACATACCATCAAGGCTGACCCATCTGGTGCTACCATAACAACAGCAGCTGCG
GCCAGGTTTATGGCGGATGTGCGTTGGGGCTTGGGCACTGCTGAGGATGGCG
AAATTGGTCACGGCATCCTTGGTGTCTGTTTAACTGGCGGACACAGTTTT
AGGTGGCTTGCCCTCGACACTGCTGCGGGCGGCGAGTGGTCAGTACATGTAC

Fig. 9C

GGCCGGCCTGTGGGGAACGCGAACGGCGAGCCTGAGGTGAAACTGTATATG
TCGGTTGAGGATGCCGTTAACGATAAACCTATTATGGTCCCCCATGACATCG
ACCTCGGGACCAGCACTGTCACCTGCCAGGACTATGGGAATCAGCATGTGG
ATGACCGCCCATCCCCGGCCCCGGCCCCCTAAGCGAGCTTTGGGCACCCTAAG
GTCAGGGGATGTGTTGCGTATTACTGGCTCCATGCAGTATGTGACTAACGCC
GAGTTGTTACCGCAGAGTGTGTCACAGGGGTACTTTGGGGCCGGCAGCACC
ATGATGGTGCATAATTTGATCACTGGTGTGCGCGCCCCCGCCAGTTCAGTCG
ACTGGACGAAGGCAACAGTGGATGGGGTCCAGGTGAAGACTGTCGATGCTA
GTTCTGGGAGTAATAGGTTTGCAGCGTTACCTGCATTTGGAAAGCCAGCTGT
GTGGGGGGCCCCAGGGCGCTGGGTATTTCTACCAGTATAACAGCACCCACCA
GGAGTGGATTTATTTTCTTCAGAATGGTAGCTCCGTGGTTTGGTATGCATATA
CTAATATGTTGGGCCAGAAGTCAGATACATCCATTCTTTTTGAGGTCCGGCC
AATCCAAGCTAGTGATCAGCCTTGGTTTTTGGCACACCACACTGGCGGCGA
TGACTGTACCACCTGTCTGCCTCTGGGGTTAAGAACATGTTGCCGCCAGGCG
CCAGAAGACCAGTCACCTGAGACGCGCCGGCTCCTAGACCGGCTTAGTAGG
ACATTCCCCTCACCACCCTAATGTCGTGGTTTTTGGGGTTTTAGGTTGATTTTC
TGTATCTGGGCGTAATTGCCCTATGTTTAATTTATTGTGATTTTTATAACTG
TTCATTTGATTATTTATGAAATCCTCCCATCTCGGGCATAGTAAAAAAAAAA
AAAAA

Fig. 10

PALDFDGRCLTSAVDLGLQPTSWRTVSHRCPWDVCIFLRDYP TITTTSRVLRSV
VFTGETIGQKIVFTQVAKQSNPGSITVHEAQGSTFDQTTIIATLDARGLIASSRAH
AIVALTRHRERCSVIDVGGVLVEIGVTDAMFNNIE

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Fig. 11

ACCAGCATTGGATTTTCGATGGACGCTGTTTAACGAGCGCCGTTGATCTTGGG
TTGCAGCCTACCAGCTGGCGCACCGTATCCCACCGTTGCCCTTGGGACGTTT
GTATATTTTTGCGTACTGATTATCCGACTATCACCACAACCAGTAGGGTGCT
GCGGTCTGTTGTGTTTACCGGTGAAACCATTGGTCAGAAGATAGTGTTTACC
CAGGTGGCCAAGCAGTCGAACCCCGGGTCCATAACGGTCCATGAGGCGCAG
GGCAGTACTTTTGATCAGACTACTATAATCGCCACGTTAGATGCTCGTGGCC
TTATAGCTTCATCTCGCGCGCATGCCATAGTTGCGCTAACCCGCCACCGGGA
GCGCTGTAGTGTGATTGATGTTGGTGGGGTGCTGGTCGAGATTGGAGTTACT
GATGCCATGTTTAACAATATCGAA

Fig. 12

LVRPDAAAPAGVLRAPDDTVDGLLDIPPAHTDVA AVLTAEAIGHAPLELA AINP
PGPVLEQGLLYMPARLDGRDEVVKLQLSDTVHCRLAAPT SRLAVINTLVGRYG
KATKLPEVEYDLMDTIAQFWHHIGPINPSTLEYAEMCEAMLSKGQD GSLIVHLD
LQDADCSRITFFQKDCAKFTLDDPVAHGKVGQGISA WPKTLCALFGPW FRAIEK
HLVAGLPPGYYYGDLYTEADLHRSVLCAPAGHLVFEN DFSEFDSTQNNVSLDL
ECEL MRRFGMPDWMVALYHLVRSYWLLVAPKEALRGCWKKHSGEP GTLLWN
TVWNMTVLHHVYEFDRPSVLCFKGDDSVVVCESVRARPEGVSLVAD CGLKMK
DKTGPCGA FSNLLIFPGAGVVCDLLRQWGRLTDKNWGPDIQRMQDLEQACKDF
VARVVTQGKEMLT IQLVAGYYGVEVGMVEV VWGALKACAAARETLVTNRLP
VLNLSKED

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Fig. 13

gcttgtgcgacctgatgctgcagcccctgccggggtgctacgagccccagacgacaccgtggatggcttgttgacataccc
ccggcccacactgatgtagcggcggtgtaacagctgaggcgattgggcatgcgccccttgaattggccgccataaatccacc
cgggcctgtattggagcagggcctattatacatgccggccaggcttgatgggcgtgatgaggttgtaagctccagctgtcggg
tactgtacactgccgcctggctgcacccactagccgtcttgcggtgattaacacattggttgggcggtacggtaaagccactaa
gctgcctgaggttgaatatgacttaatggacactattgcgcagttctggcatcatatcggaccaatcaaccctcaacactggagt
atgcagagatgtgcgaggccatgcttagtaagggccaggatgggtccttgattgtacatctggatttacaggatgctgattgttct
cgcataacattcttcagaaggactgcgctaaatttacgctggatgaccctgttgccacacggtaaagtgggacaggggatct
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agccgggcacccctttgtggaatacagtttgaacatgactgtgttgcacatgtttatgagtttgatcgaccaagtgtgttgtgttc
aaaggtgatgatagtgctgtgtgaatcgggtgcgcgcccgtccagaggcgtagtctcgtggcagactgcgggctaaa
aatgaaggacaagaccggcccgtgtggcgccctttccaacctgctgatctccgggagctgggtgtgtcgcgacctgttacg
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aggtggtttgggggctttgaaggcctgcgcgcgagcccgcgagaccctagtaccaacaggttgcgggtactaaacttacc
taaggaggac

Fig. 14

MSLCRLLMLAMCCGVSRGSQTLPAAGRRGQRRRDNSAQWSTQQRPEGAVGP
APLTDVVTAAAGTRTPDVDQAGAVLVRQYNLVTSPGLATLGSTNALLYAAPV
SPLMPLQDGTTSNIMSTESSNYAQYRVQGLTVRWRPVVPNAVGGFSISMAYWP
QTTSTPTSIDMNSITSTDVRVVLQPGSAGLLTIPHERLAYKNNGWRSVETVSV PQ
EDATSGMLMVCVHGTPWNSYTNVYTGPLGMVDFAIKLQLRNLSPGNTNARV
TRVKVTAPHTIKADPSGATITTTAAAARFMADV RWGLGTAEDGEIGHGILGVLF
NLADTVLGGLPSTLLRAASGQYMYGRPVG NANGEPEVKLYMSVEDAVNDKPI
MVP HDIDLGTSTVTCQDYGNQHVD DRPSPAPAPKRALGTLRSGDVL RITGSMQ
YVTNAELL PQSVSQGYFGAGSTMMVHNLITGVRAPASSVDWTKATVDGVQVK
TVDASSGSNRFAALPAFGKPA VWGPQGAGYFYQYNSTHQEWIYFLQNGSSVV
WYAYTNMLGQKSDTSILFEVRPIQASDQPWFLAHTGGDDCTTCLPLGLRTCC
RQAPEDQSPETRLLDRLSRTFPSPP

MSLCRLLMLAMCCGVSRGSQTLPAAGRRGQRRRDNSAQWSTQQRPEGAVGP
APLTDVVTAAAGTRTPDVDQAGAVLVRQYNLVTSPGLATLGSTNALLYAAPV
SPLMPLQDGTTSNIMSTESSNYAQYRVQGLTVRWRPVVPNAVGGFSISMAYWP
QTTSTPTSIDMNSITSTDVRVVLQPGSAGLLTIPHERLAYKNNGWRSVETVSV PQ
EDATSGMLMVCVHGTPWNSYTNVYTGPLGMVDFAIKLQLRNLSPGNTNARV
TRVKVTAPHTIKADPSGATITTTAAAARFMADV RWGLGTAEDGEIGHGILGVLF
NLADTVLGGLPSTLLRAASGQYMYGRPVG NANGEPEVKLYMSVEDAVNDKPI
MVP HDIDLGTSTVTCQDYGNQHVD DRPSPAPAPKRALGTLRSGDVL RITGSMQ
YVTNAELL PQSVSQGYFGAGSTMMVHNLITGVRAPASSVDWTKATVDGVQVK
TVDASSGSNRFAALPAFGKPA VWGPQGAGYFYQYNSTHQEWIYFLQNGSSVV
WYAYTNMLGQKSDTSILFEVRPIQASDQPWFLAHTGGDDCTTCLPLGLRTCC
RQAPEDQSPETRLLDRLSRTFPSPP

Fig. 15

atgtcgtgtgtagattgttgcctcatgcttgaatgtgctgctgggggtgtcaaggggctcccaaacgctcccagccggaggcagg
cgtggccagcgcgcggtgacaattcagcccagtgaggcactcaacaacgccccgaggagccgtcggccccgcccctct
cacagacgttgtcaccgcggcaggtactcgcacggtagcagatgtagatcaagccggtgccgtgctggtgctgcccagtataatc
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tgacatgaattccatcacgtccactgacgtccgtgtggtgcttcagccgggctctgctggtttgctgactataccacatgagcgttt
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catctggtgctaccataacaacagcagctgcggccaggtttatggcggtatgtcggtggggcttgggcactgctgaggatggc
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caccacactggcggcgatgactgtaccacctgtctgcctctggggtaagaacatgttgccgccaggcgccagaagaccagtc
acctgagacgcgcccggctcctagaccggcttagtaggacattccccaccaccctaa

1 2

Figure 1 displays 12 histograms showing the distribution of the number of non-zero elements in the vector x for different values of n . The histograms are arranged in a 6x2 grid. The top row shows $n=10, 20, 30, 40, 50, 60$. The bottom row shows $n=70, 80, 90, 100, 110, 120$. Each histogram has 'Number of non-zero elements' on the x-axis (ranging from 0 to 120) and 'Frequency' on the y-axis (ranging from 0 to 100). The distributions are unimodal and shift to the right as n increases.

Fig. 17

atgtgccttagctgccagttctggtgtttggagtgccaggaaagtggggtgggatgtcgctgtgtagattgttgctcatgcttgca
atgtgctgcgggggtgtcaaggggctcccaaagctcccagccggaggcaggcgtggccagcgccgccgtgacaattcagc
ccagtggagcactcaacaacgccccgaggagccgtcggtccccgcccctctcacagacgttgtcaccgcggcaggtactcg
cacggtaccagatgtag

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Fig. 18A



Fig. 18B



40029840-123404



Fig. 19A

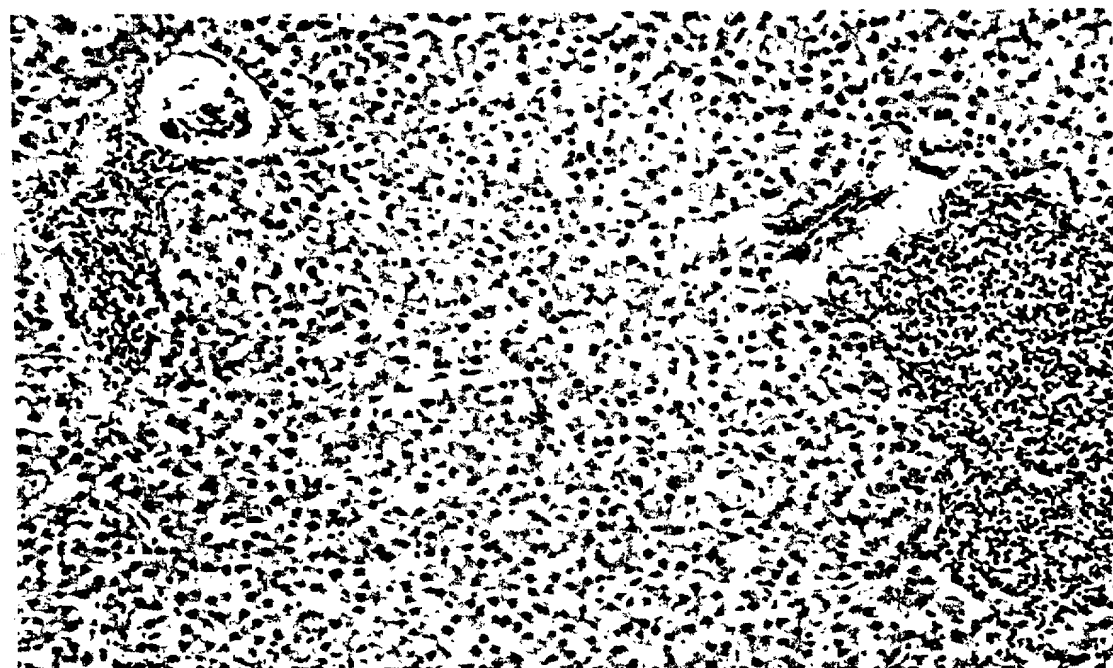


Fig. 19B

Fig. 20

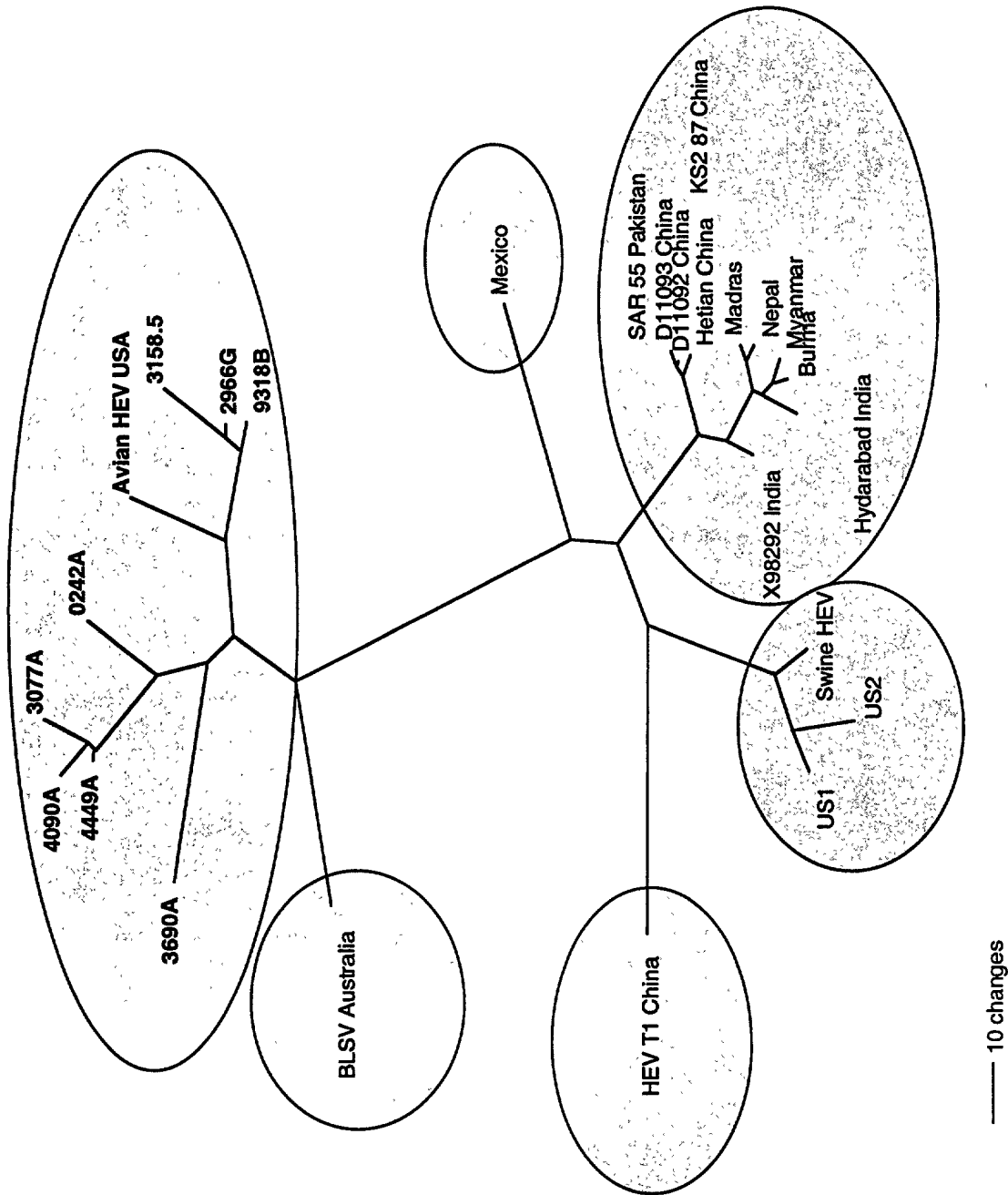


Fig. 21A

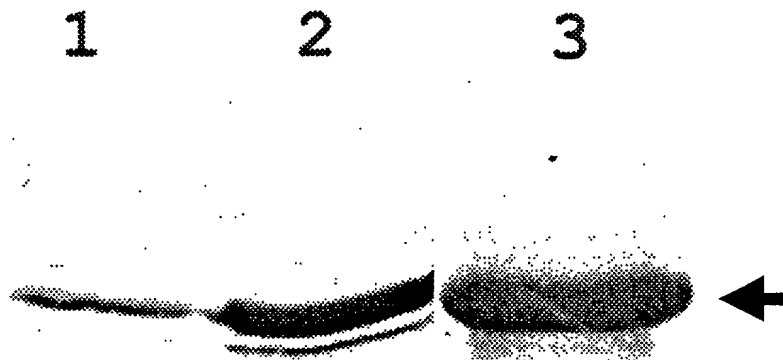
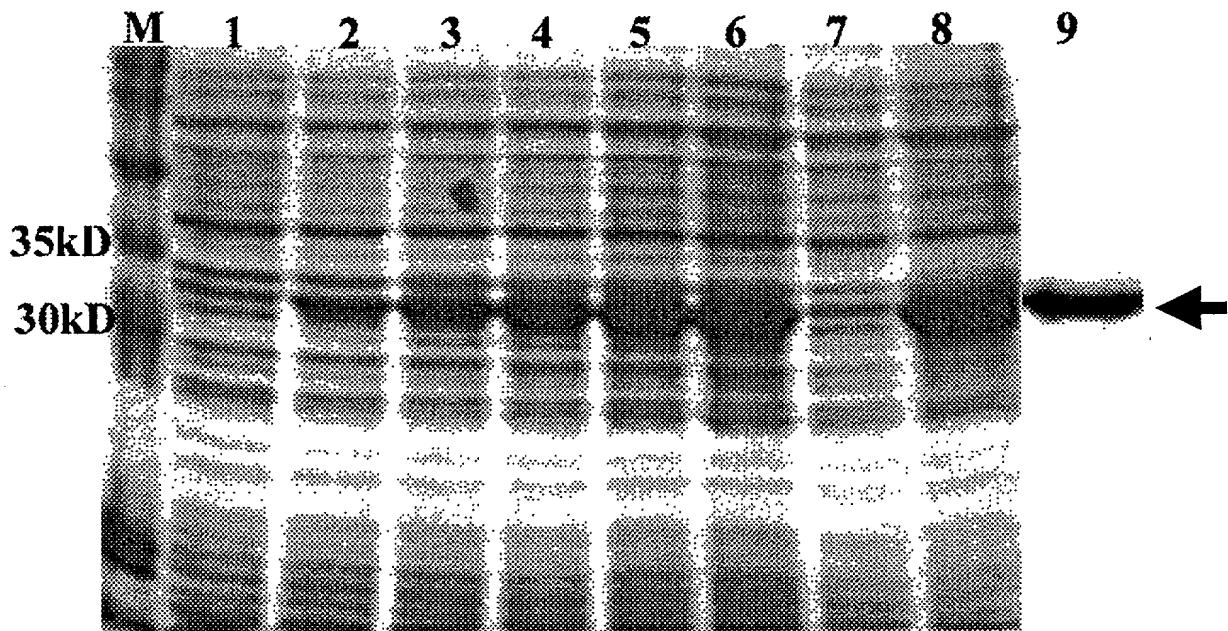


Fig. 21B

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Fig. 22B

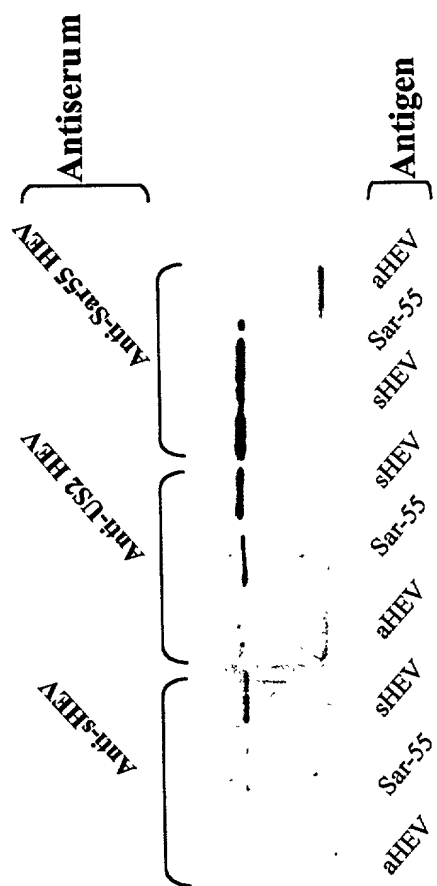


Fig. 22C

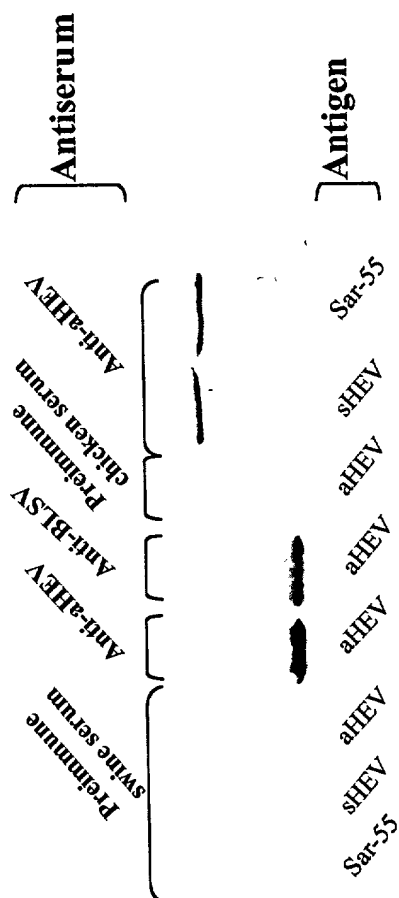


Fig. 23

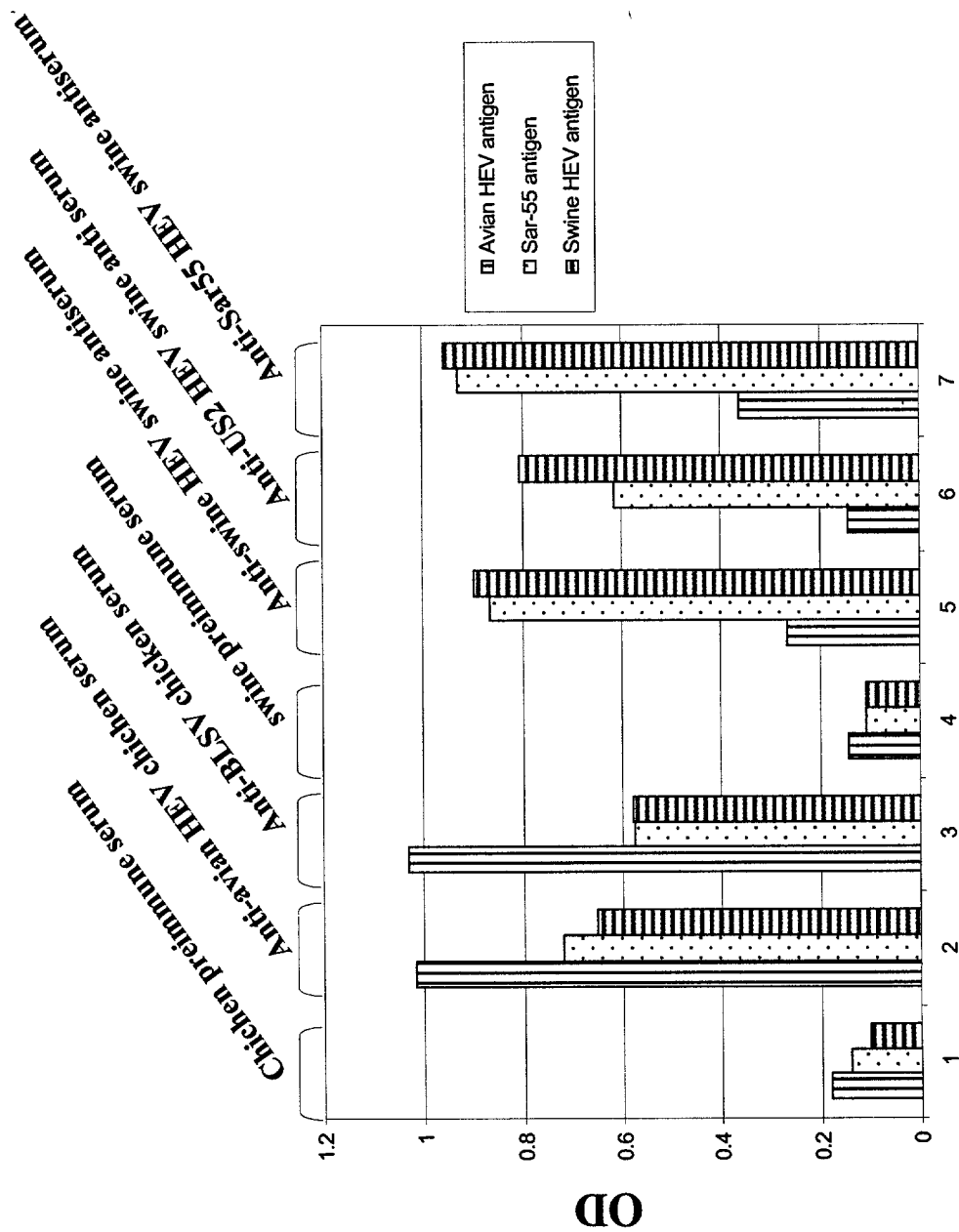


Fig. 24

Avian HEV QYMYGRPVGNANGEPEVKLYMSVEDAVNDKPIMVPHDIDLGTSTVTCQDY
 Swine HEV .LF.S...VS.....T....T...N.QQ..G.TI.....D.R.VI...
 US-2 .LF.S...VS.....T....T...N.QQ..G.TI.....D.R.VI...
 Sar-55 .LF.S...VS.....T....T...N.QQ..G.AI.....E.R.VI...

Avian HEV GNQHVDDRPSPAPAPKRALGTLRSGDVLRLITGSMQYVTNAELLPQSVSQG
 Swine HEV D...EQ...T.S...S.PFSV..AN...WLSLTA---AEYDQTTYGS.TN
 US-2 D...EQ...T.S...S.PFSV..AN...WLSLTA---AEYDQTTYGS.TN
 Sar-55 D...EQ...T.S...S.PFSV..AN...WLSLTA---AEYDQS TYGS.T

Avian HEV YFGAGSTMMVHNLITGVRAPASSVDWTKATVDGVQVKTVDASSGSNRFAAL
 Swine HEV PMYVSD.VTLV.VA..AQ.V.R.L..S.V.L..RPLT.IQQY.KT--.YV.
 US-2 PMYVSD.VTLV.VA..AQ.V.R.L..S.V.L..RPLT.IQQY.KT--.YV.
 Sar-55 PVYVSDSVTLV.VA..AQ.V.R.L....V.L..RPLS.IQQY.KT--.FV.

Avian HEV PAFGKPAVWGP--QGAGYFYQYNSTHQEWIYFLQN-GSSVVWYAYTNMLGQ
 Swine HEV .LR..LSF.EAGTTK...PYN..T.ASDQ.LIENAA.HRVAIST..TS..A
 US-2 .LR..LSF.EAGTTK...PYN..T.ASDQ.LIENAA.HRVAIST..TS..A
 Sar-55 .LR..LSF.EAGTTK...PYN..T.ASDQLLIENAA.HRVAIST..TS..A

Avian HEV K----SDTSILFEVRPIQASDQ--PWFLAHHTGGDDCTTCLPLGLRTCCRQ
 Swine HEV GPTSI.AVG.V.APHSALAVLEDTVDYPARA..FD.F.PE.RT...QG.AF.
 US-2 GPTSI.AVG.V.APHSALAVLEDTIDYPARA..FD.F.PE.RT...QG.AF.
 Sar-55 GPVSI.AVAV.APHSVLALLEDTMDYPARA..FD.F.PE.RP...QG.AF.

Avian HEV APEDQSPETRRLLDRLSRTFPSPP
 Swine HEV S---TIA.LQ..KMKVGK.RE.--
 US-2 S---TIA.LQ..KMKVGK.RE.--
 Sar-55 S---TVA.LQ..KMKVGK.REL--

Fig. 25A

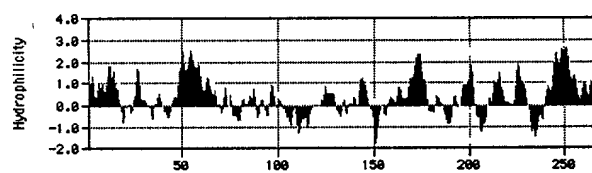
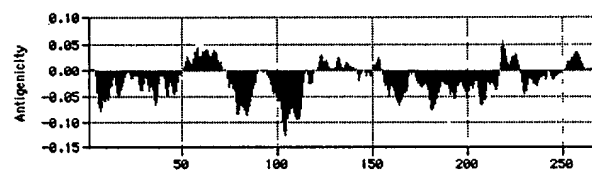


Fig. 25B

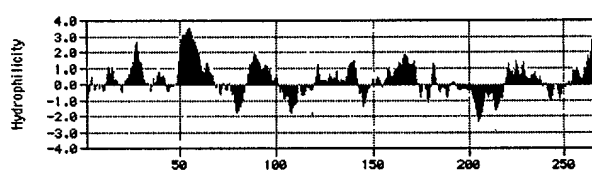
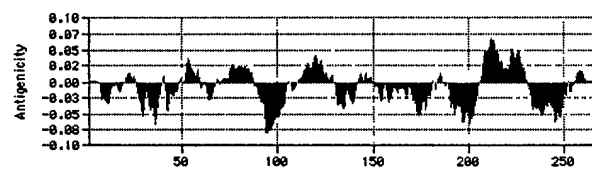


Fig. 25C

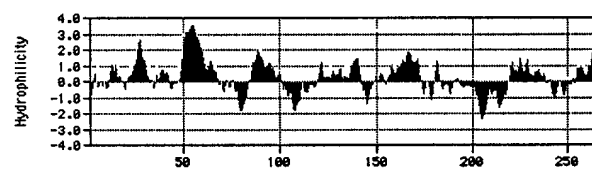
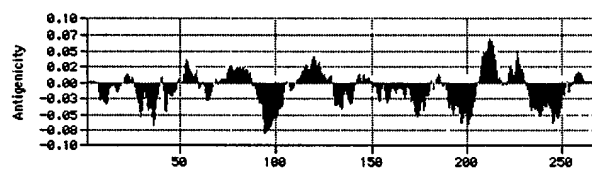


Fig. 25D

